UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
GISHNOCK, NIKOLAI A

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _20 February 2008_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _53-73_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _53-73_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _02 July 2003_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _1/11/2008 2/20/2008_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

In response to Applicant's reply filed 2/20/2008, claims 1-52 are cancelled. Claims 53-73 are

pending.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

    1.   Determining the scope and contents of the prior art.
    2.   Ascertaining the differences between the prior art and the claims at issue.
    3.   Resolving the level of ordinary skill in the pertinent art.
    4.   Considering objective evidence present in the application indicating obviousness
            or nonobviousness.

3.   Claims 53-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv-El (US

6,302,698 B1), hereinafter known as Ziv-El.

4.   Ziv-El teaches a method for training a learner to memorize the answer to a question

(The present invention provides for a teaching strategy where the students are given a question

in a frame, which requires them to respond both in the form of an answer which is automatically

scored by the system, as well as with an explanation which can be subjectively evaluated by the

teacher, 4:10-15), the answer to the question including a keyword having at least 2 characters

(alternative answers 18:49-65; the answers "uneasy", "fidgety", or "reckless" are understood to

have at least two characters), the method performed by a computer system having a processor, a memory, a keyboard, and a display (an on-line teaching and learning system according to the invention, including a teacher's computer and five student computers. The teacher's computer includes an input device (such as a keyboard, a mouse or similar means for selecting a character or an item on a screen as well as bar code reader apparatus, by which characters can be read and input to simulate keystrokes on a keyboard) and an output device, in this example, a 17-inch color monitor. In this description, the term "computer" shall mean an item of equipment including a central processor, a memory, at least one input device and at least one output device, 5:41-52), the method comprising: presenting on the display, utilizing a graphical user interface, the question and the answer to the question (The teacher's class response window applies to frame of a single lesson, as indicated by (1 lesson) on Response button. The name of the lesson is English 5 as shown. The Question/Summary and the Answer(s) remind the teacher of what the authored frame is all about, while the teacher examines the dynamic screen below, as the students are responding, 22:42-49; Response Screen, (also referred to as the responses view), which is the result of pressing the Response button after the students have already started to respond. The screen is dynamic since it is updated while students type on their keyboards. The two top rows of buttons, as well as the Question/Summary field, are virtually the same as the Frame Content User Interface, 22:20-41; see also 18:49-65, the question "Give synonym of `Restive`. Explain meaning or use `restive` in a sentence." is written in the Student Display area, while the message "You have 30 minutes for this quiz. NO TALKING PLEASE" is written in the Class Display area. The Answers to the question, if there are more than one, are entered by typing into data entry/display area and adding it to the list of Answers by actuating the Add button; see also Figure 8); presenting on the display, utilizing the graphical user interface, a prompt to answer the question; then, receiving a first received

character entered into the keyboard by the learner; then, receiving a second received character entered into the keyboard by the learner (FIG. 11 is a view of a student's screen for a Fill-in-the-blanks type of exercise. The cursor initially comes to rest in the first blank space to be filled in, as shown by the ">" symbol. When the student finishes fitting in the first answer in the space for Atlantic, he or she presses the tab key or clicks with the mouse on the space for Pacific and fills in the second response, etc. Each student response is compared and evaluated, character-by-character at the time of typing, with the corresponding answer according to the Judge mode, and reinforcement is given according to the Feedback selection while using the comparison and evaluation logic, 20:65-21:21; see also response area, Figure 11); if and only if the first received character is equal to the first character of the keyword and if and only if the second received character is equal to the second character of the keyword, presenting on the display, using the graphical user interface, the first received character in a first font and presenting on the display the second received character in the first font; if and only if the first received character is equal to the first character of the keyword and if and only if the second received character is not equal to the second character of the keyword, presenting on the display, using the graphical user interface, the first received character in the first font and presenting the second received character in a second font (The column headed "Response" is the response of the student to the teacher's request for the direct answer to the question shown in brief. This Response column is color-coded, but for convenience is shown here as follows: italics font instead of green for correct; normal font instead of red for incorrect. If a response is the result of a question whose answer is judged according to the Keyword Mode, and a student's response has not yet reached the keyword, the response would appear in bold or blue. Also, if a question does not have a programmed correct answer, the Response column would be written in bold or blue, 22:50-23:8; it is understood that the character-by-character response comparison at the time of

typing presents the characters in italics if correct and in normal font if incorrect, thus second

received character would be displayed in the first font only if it is correct, and in the second font

only if incorrect) [Claims 53 & 65].

5.   Ziv-El teaches where responses are color coded and font-coded (22:50-23:8); where

reinforcement is given in response to a correct or incorrect answer (Mode control data is stored

in areas associated with each frame to determine modes of operation within the frame. The

Judge Mode group is a class of modes that determines how student responses are to be judged

and evaluated. The Judge Modes includes Identical Mode which requires a case insensitive,

perfect match between the characters of a student response and those of an answer, Case

Sensitive Mode, which requires that any matching must be case sensitive, Match+ Mode, which

requires matching only of the first part of a response, Keyword Mode which requires the

presence of a particular string within a longer string of characters, and None Mode, which

requires no matching to take place. This is followed by mode control data designating various

Learning Reinforcement Modes. These modes include Letter-by-letter with mode control data

stored in memory area, implying a reinforcement feedback signal on every correct character

typed by the student, with a different signal on the last character of a correct response. A Final-

letter Reinforcement mode (with mode control data stored in memory area) implies a particular

reinforcement feedback signal on the last character of a correct response only, 12:15-39);

where reinforcement may be in the form of audio, light, color, or font (Each student computer

includes a full alphanumeric keyboard, and a screen and is provided with a speaker or beeper

capable of emitting sounds to act as an audio feedback signal for learning reinforcement of the

correctness of a response or to alert the student to respond to a teacher's request. A learning

reinforcement feedback signal can be either an audio signal from the speaker, or a visual

reinforcement feedback signal, or both. The visual reinforcements signal is provided by a light or

a place on the screen, which goes on or flashes in different modes and also acts as a learning

reinforcement feedback signal. Also, instead of flashing lights one can use say inverse video

characters (i.e. white on black) on the student's screen for correct and normal (black on white)

for incorrect, with a flashing cursor when completing a correct response, 6:6-34); and where a

student modifies a previously typed answer (The question which was authored into work area

appears near the top. The cursor comes to rest in Answer work area. The student is expected to

write his or her response to the question there, and the explanation in work area below under

Explanation. When the student writes his or her response, which is shown as `fidgety`, the

response is compared and evaluated, character-by-character at the instant each character is

written, according to the Judge criterion, against the three authored answers in block. At the

same time, characters are transmitted as they are being typed to the Response Buffer by

means of the Response server. Should the student now click outside the Explanation text

entry/display area, the change in X-Y co-ordinates is noted, the cursor is transferred back to the

text entry/display area, and the student may proceed to modify the response in text entry/display

area, while comparison and evaluation of the response resumes as before, 19:36-62). What Ziv-

El fails to explicitly teach is replacing the first received character with the second received

character if and only if the first received character is not equal to the first keyword [Claims 53 &

65]. However, replacing incorrect characters with correct characters in a response is understood

to be performed by a student modifying the response in the text entry field in reply to the

dynamic evaluation. Ziv-El would merely modify detected incorrect characters by replacing them

with the most recently typed character when a student is not allowed to proceed typing the

response until the next consecutive correct character is input, In order to provide more

immediate reinforcement to the student when an incorrect character is typed than when the

entire response is evaluated. To wit, Ziv-El teaches where the student would modify an incorrect

character before typing the remaining response. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to allow the replacement of the first received character with the second received character only if the first received character is not equal to the first keyword {incorrect} in the method of Ziv-El, in order to provide color-coded or font-coded feedback to a student as soon as a character is typed, rather than after the entire response has been typed and evaluated [Claims 53 & 65].

6.   Ziv-El teaches wherein the displaying of the first received character in the first font and displaying the second received character in the first font includes displaying a portion of the answer to the question that includes the correct substance of the answer as well as the correct spelling of the answer (Note that the students in seats A2, A6, B1 C2 and C6 have been marked wrong, and the responses are not in italics, but not all for the same reason. The students in seats A2, B1, and C6, are totally wrong. The student in seat A6, has got the right word, but has misspelled fidgety. The student in Seat C2 has not yet completed his response, as is the case of the student in B3, however whereas the B3 student is on the right track of "fidgety", and hence her response is in italics, the student in seat C2 typed a "g" instead of a "d", thereby causing his response to change immediately from italics to the normal font, 23:23-37) [Claims 54 & 66].

7.   Ziv-El teaches wherein the displaying of the first received character in the first font and the displaying of the second received character in the first font includes displaying a portion of the answer to the question that includes a substantive word and a non- substantive word [Claims 55 & 67], two substantive words and a non- substantive word [Claims 57 & 69], three substantive words and a non- substantive word [Claims 58 & 70], and wherein the non-substantive word is the word "and" [Claims 56 & 68] (When a question or statement is presented which has missing words which have to be filled in, in a specific order, the Ordered command is selected by the author, as shown in box 150. The Frame is authored by writing the

question or statement, complete with the missing words filled in, as shown in the Student

Display area 132. The words to be filled in here are "Atlantic, Pacific and African." 20:35-64; It

appears that "Atlantic" is a first substantive word, "Pacific" is a second substantive word,

"African" is a third substantive word, and "And" is the non- substantive word) [Claims 55-58 &

67-70].

8.   Ziv-El teaches wherein the first font has a color that is different from the color of the

second font [Claims 59 & 71], wherein the second font is a red font [Claims 60 & 72], wherein

the first font indicates that a character displayed in the first font is a correctly entered character

[Claim 61], wherein the second font indicates that a character displayed in the second font is an

incorrectly entered character [Claim 62], and wherein at least a portion of the answer is

displayed in a blue font [Claim 64] (When students respond on their keyboards, their responses

are sent character by character in real time to the responses buffer on response server, so that

the teacher can observe, virtually character by character, on the monitor, a teacher's class

response window showing a large number of students responding simultaneously. The

responses appear color-coded, such as green if the student is on the correct track, red for

wrong and blue if a response is the result of a question which does not have a programmed

correct answer or the keyword has not yet been typed in a Keyword exercise. Such `color-

coded` responses, which are distinguished one from the other according to effect of the

comparison and evaluation logic described, include the idea of a change of fonts like italic and

bold, 11:19-35; also, this Response column is color-coded, but for convenience is shown here

as follows: italics font instead of green for correct; normal font instead of red for incorrect. If a

response is the result of a question whose answer is judged according to the Keyword Mode,

and a student's response has not yet reached the keyword, the response would appear in bold

or blue. Also, if a question does not have a programmed correct answer, the Response column

would be written in bold or blue, 22:50-23:8; it is understood that, in the response, italics font corresponds to green color which represents a correct keyword answer, normal font corresponds to red color representing an incorrect keyword answer, and bold font corresponds to blue color which represents that a keyword has not been found in the response) [Claims 59-62, 64, 71, & 72].

9.   Ziv-El teaches wherein the displaying of the first received character in the first font and the displaying of the second received character in the first font occur simultaneously with the displaying of the question and the answer to the question (The teacher's class response window applies to frame of a single lesson, as indicated by (1 lesson) on Response button. The name of the lesson is English 5. The Question/Summary and the Answer(s) remind the teacher of what the authored frame is all about, while the teacher examines the dynamic screen below, as the students are responding, 22:42-49; see also Figure 14; the question/summary, correct answers, and responses are displayed simultaneously) [Claims 63 & 73].

Response to Arguments

10.   Applicant's arguments with respect to claims 53-73 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Collins et al. (US 5,437,553 A), Park (US 2003/0049592 A1), and Sheppard II (US 5,820,386 A), all disclose computer-based learning methods having real-time evaluation of words and characters.

12.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is (571)272-1420. The examiner can normally be reached on M-F 8:30a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

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would like assistance from a USPTO Customer Service Representative or access to the

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/6/2008
/N. A. G./
Examiner, Art Unit 3714

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06/06/08